

2002. Claims 1-10 and 12-29 remain pending in this application. Claims 30-38 have been cancelled, without prejudice or disclaimer of subject matter. Claims 1-10, 12, 15-19, 21 and 24-29 have been amended to define still more clearly what Applicants regard as their invention. Claims 1, 5, 8, 12, 16, 19, 21, 25, and 28 are in independent form. Favorable reconsideration is requested.

Claims 5 and 9 have been amended to address the formal objections set at in paragraph 1 of the Office Action, the withdrawal of which is therefore respectfully requested.

Claims 30-38 were rejected under 35 U.S.C. §§ 101, as being directed to non-statutory subject matter, and 112, first paragraph, as being directed to subject matter not enabled by the application as filed. Without conceding the propriety of either rejection, Applicants have canceled these claims, thus eliminating the bases for these rejections. These claims will not be mentioned further in this Amendment.

Claims 1, 2, 4-6, 8-10, 12, 13, 15-17, 19-22, 24-26, 28, and 29 have been rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,297,042 (Morita). Claims 3, 14, and 23 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over *Morita* in view of U.S. Patent No. 5,835,087 (Herz et al.), and Claims 7, 18, and 27, as being unpatentable over *Morita* in view of U.S. Patent No. 5,592,375 (Salmon et al.).

As is described in the application in somewhat more detail, the present invention is presented to ameliorate a problem, or at least a short-coming, of previously available methods of providing advertising and related information to users of the Internet. Applicants believe that one service that would be useful in this regard, would be one that would allow a user

to input a keyword or the like, and in response to be supplied with information related to a subject identified by or related to the input term(s). For example, if the user is interested in planning a wedding, the input term might be “wedding”, and the response might be information about various services and products available that would be suitable for use in a wedding. In such an example, however, it would be undesirable for the user to receive information relating to, say, divorces. Applicants, taking this into consideration, have devised a variety of methods and apparatuses, as well as software implementations thereof, to provide such a functionality.

The aspect of the present invention set forth in Claim 1 is directed to a search method, of searching for output information strongly related to input information, from among a plurality of candidate bodies of information. The method of Claim 1 comprises extracting one or more keywords typically representing information corresponding to the input information and each of the plurality of candidate bodies of information, extracting a weight value that is set in association with the input information and each of the plurality of bodies of candidate information, and generating a keyword list. Then there is performed an arithmetic step, in which is executed a predetermined arithmetic operation for the weight value of each keyword of the input information and the weight value of each keyword of each of the plurality of candidate bodies of information. In a selection step, is selected output information from the plurality of candidate bodies of information based on arithmetic results obtained by performing the predetermined arithmetic operation for substantially all keywords of each of the plurality of candidate bodies of information in the arithmetic step, and then the input information with the output information attached to the input information is output. Also, according to Claim 1, the

mentioned weight value is a numerical value with "-" or "+" given to each keyword in consideration of a respective universally accepted idea on the contents of each of the keywords. According to Claim 1, the "-" and the "+" mean that the keyword has negative or positive contents, respectively, with respect to its corresponding one of the universally accepted ideas.

Thus, one important feature of the aspect of the invention recited in Claim 1, is to output user request information (input information) with (for example) advertisement information (or other output information) attached. The advertisement (or other) information to be outputted is selected from a plurality of candidates in consideration of a universally-accepted idea about the contents of each keyword included in each of the plurality of candidates.

Each such keyword included in candidate information has a weight value, which according to Claim 1 is a numerical value with an algebraic sign ("- or "+") given to the keyword in consideration of a universally-accepted idea on the contents of that keyword. The "-" and the "+" mean that the keyword has negative or positive contents, respectively, with respect to the corresponding universally-accepted idea. In the mentioned example, for instance, keywords relating to marriage ceremonies and celebrations will be given a positive weight, while those relating to divorce will have a negative one.

By virtue of these features, when a user of the method of Claim 1 inputs request information relating to "marriage", it is possible to prevent the attachment of unsuitable or improper information (such as divorce consultation) with the user request information.

Morita relates to a keyword associative document retrieval system, a user of which may input a retrieval condition such one or more keyword(s) and a weight condition for

each keyword. The system includes a set of relationship values, indicating apparently degrees of relationship between each two keywords (or at least, between pairings of keywords from a predetermined list of keywords), as well as importance values, which relate to the importance of a given keyword in a given document. The system is intended to reply to the user's request, based on the input retrieval conditions, and the stored relationship and importance values.

However, the weight value discussed in *Morita* does not, from anything Applicants can find in that document, suggest a weight value which is a numerical value with a "-" or "+". Much less has anything been found in *Morita* that would teach or suggest the use of weights for keywords, which weights are assigned in consideration of a universally accepted idea relating to the contents of that keyword, as in the method of Claim 1.

For at least these reasons, Applicants submit that Claim 1 is clearly allowable over *Morita*.

Independent Claim 5 is directed to a search method of searching for output information related to input information from a plurality of candidate bodies of information. The method of Claim 5 comprises extracting one or more keywords representing selectivity to the input information, and selecting, as the output information, candidate information having a large sum value of keywords with values close to a value of the extracted one or more keywords from the plurality of candidate bodies of information. Then there the input information is outputted, with the output information attached to the input information.

Applicants submit that nothing has been found, or pointed out, in *Morita* that would teach or suggest any method in which there is a selection, as output information, of

candidate information having a large sum value of keywords with values close to a value of one or more extracted keywords, as recited in Claim 5. For at least that reason, Applicants submit that Claim 5 is clearly allowable over *Morita*.

Independent Claim 8 is directed to a search method of searching for output information related to input information from a plurality of candidate bodies of information. IN the method of Claim 8, there is extracted one or more information keywords typically representing information and each of the plurality of candidate bodies of information, and a weight value set in association with the input information and each of the plurality of candidate bodies of information, and a keyword list is generated. Then, one or more user keywords representing selectivity to the input information are extracted, and there is executed a predetermined arithmetic operation for the weight value of each information keyword of the input information and the weight value of each information keyword of each of the plurality of candidate bodies of information. There is then calculated a sum value of arithmetic results obtained by performing the predetermined arithmetic operation for substantially all information keywords of each candidate body of information, and a quantification of a degree of matching between each information keyword of each of the plurality of candidate information and the one or more user keywords, is effected. Then, a selection is made, in which there is selected, as the output information, the candidate information having the largest result obtained by adding quantified values to the arithmetic results, and the input information is then outputted with the output information attached to the input information. Also, according to Claim 8, the weight value is a numerical value with "-" or "+" given to each keyword in consideration of a respective

universally accepted idea relating to the contents of that keyword, where the algebraic sign "-" or "+" mean that the keyword has negative and positive contents, respectively, with respect to its corresponding one of the universally accepted ideas.

Claim 8 is believed to be allowable over *Morita* for at least the same reasons as is Claim 1, as well as because nothing found in that patent is seen to teach or suggest the recited arithmetic, quantification or selection steps, as those steps are recited in Claim 8.

The other independent claims are method and computer memory medium claims, respectively corresponding to the method claims discussed above, and are believed to be patentable for at least the same reasons as discussed above in connection with Claims 1, 5 and 8, respectively.

The other rejected claims in this application depend from one or another of the independent claims discussed above, and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

Applicants also request that the Examiner, in her next communication, (1) acknowledge that Applicants have filed the required certified copies of their Japanese priority application, and (2) supply an initialled copy of the form PTO-1449 filed with their Information Disclosure Statements dated May 15, 2002, and August 27, 2002.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE TO CLAIMS

1. (Twice Amended) A search method of searching for output information strongly related to input information from a plurality of candidate bodies of information, said method comprising:

[an assignment step of assigning in advance to the input information] a keyword list generating step, of extracting one or more keywords typically representing information corresponding to the input information[, assigning in advance to] and each of the plurality of candidate bodies of information [at least one keyword, and assigning in advance to each keyword], extracting a weight value that is set in association with the input information and each of the plurality of bodies of candidate information, and generating a keyword list;

an arithmetic step, of executing a predetermined arithmetic operation for the weight value of each keyword of the input information and the weight value of each keyword of each of the plurality of candidate bodies of information; [and]

a selection step, of selecting output information from the plurality of candidate bodies of information based on [a sum value of] arithmetic results obtained by performing the predetermined arithmetic operation for substantially all keywords of each of the plurality of candidate bodies of information in said arithmetic step; and

an output step, of outputting the input information attached with the output information.

wherein the weight value is a numerical value with "-" or "+" given to each keyword in consideration of a respective universally accepted idea on the contents of each of the keywords, wherein the "-" and the "+" mean that the keyword has negative and positive contents, respectively, with respect to its corresponding one of the universally accepted ideas.

2. (Amended) The method according to claim 1, wherein the predetermined arithmetic operation is multiplication of the weight values, and information corresponding to a large sum value of the arithmetic results is selected as the output information.

3. (Amended) The method according to claim 2, wherein the weight value includes a sign determined in advance for each keyword, and when a result of the predetermined arithmetic operation for weight values of a set of keywords has a relatively large positive value, it is determined that a relationship is strong.

4. (Twice Amended) The method according to claim 1, further comprising:
an input step₁ of inputting the input information from a predetermined terminal;
a first storage step₁ of storing contents of the plurality of candidate bodies of
information in an information provider server; and
a second storage step₁ of storing the keywords of each of the plurality of candidate
bodies of information and the weight values of the keywords in a management server.

5. (Twice Amended) A search method of searching for output information [strongly] related to input information from a plurality of candidate bodies of information, said method comprising:

[a registration] an extraction step, of [registering in advance] extracting one or more keywords representing selectivity to the input information; [and]

a selection step, of selecting, as the output information, candidate information [corresponding to a large number of] having a large sum value of keywords with values close to a value of the extracted one or more keywords from the plurality of candidate bodies of information; and

an output step, of outputting the input information with the output information attached to the input information.

6. (Twice Amended) The method according to claim 5, further comprising:

a first storage step, of storing the plurality of candidate bodies of information in an information provider server; and

a second storage step, of storing the one or more keywords representing selectivity to the input information in a management server.

7. (Twice Amended) The method according to claim 5, wherein the input information is specific information corresponding to a predetermined code inputted by a user, and each of the plurality of candidate bodies of information is information to be attached to the specific information and presented to the user.

8. (Twice Amended) A search method of searching for output information [strongly] related to input information from a plurality of candidate bodies of information, said method comprising:

[an assignment step of assigning in advance to the input information] a keyword list generating step, of extracting one or more information keywords typically representing information[, assigning in advance to] and each of the plurality of candidate bodies of information [one or more information keywords, and assigning in advance to each information keyword], extracting a weight value set in association with the input information and each of the plurality of candidate bodies of information, and generating a keyword list;

[a registration] an extraction step, of [registering in advance] extracting one or more user keywords representing selectivity to the input information;

an arithmetic step₁ of executing a predetermined arithmetic operation for the weight value of each information keyword of the input information and the weight value of each information keyword of each of the plurality of candidate bodies of information;

a calculation step₂ of calculating a sum value of arithmetic results obtained by performing the predetermined arithmetic operation for substantially all information keywords of each candidate body of information in said arithmetic step;

a quantification step₃ of quantifying a degree of matching between each information keyword of each of the plurality of candidate information and the one or more user keywords; [and]

a selection step₄ of selecting, as the output information, a largest candidate information from a result obtained by adding quantified values obtained in said quantification

step to the [sum value] arithmetic results; and

an output step, of outputting the input information with the output information
attached to the input information,

wherein the weight value is a numerical value with "-" or "+" given to each
keyword in consideration of a respective universally accepted idea on the contents of each of the
keywords, wherein the "-" and the "+" mean that the keyword has negative and positive contents,
respectively, with respect to its corresponding one of the universally accepted ideas.

9. (Twice Amended) The method according to claim 8, further comprising a
storage step, of storing in advance at least one apparatus keyword of a terminal apparatus, for
outputting the output information, and a weight value of each apparatus keyword, [and taking]
wherein the weight value of each apparatus keyword is taken into consideration in said selection
step.

10. (Amended) A computer-readable storage medium storing a program for
implementing an information providing method according to claim 1.

12. (Amended) An apparatus for searching for output information [strongly]
related to input information from a plurality of candidate bodies of information, said apparatus
comprising:

[an assignment unit, adapted to assign in advance to the input information] a
keyword list generating unit adapted to extract one or more keywords typically representing

information corresponding to the input information[, to assign in advance to] and each of the plurality of candidate bodies of information [at least one keyword, and to assign in advance to each keyword] , extract a weight value that is set in association with the input information and each of the plurality of candidate bodies of information, and generate a keyword list;

a[n] calculator, adapted to execute a predetermined arithmetic operation for the weight value of each keyword of the input information and the weight value of each keyword of each of the plurality of candidate bodies of information; [and]

a selector, adapted to select output information from the plurality of candidate bodies of information based on [a sum value of] arithmetic results obtained by performing the predetermined arithmetic operation for substantially all keywords of each of the plurality of candidate bodies of information using said calculator; and

an output unit, adapted to output the input information with the output information attached to the input information,

wherein the weight value is a numerical value with "-" or "+" given to each keyword in consideration of a respective universally accepted idea on the contents of each of the keywords, wherein the "-" and the "+" mean that the keyword has negative and positive contents, respectively, with respect to a corresponding one of the universally accepted ideas.

15. (Amended) The apparatus according to claim 12, further comprising:

an input unit, adapted to input the input information from a predetermined terminal;

a first storage unit, adapted to store contents of the plurality of candidate bodies of

information in an information provider server; and

a second storage unit, adapted to store the keywords of each of the plurality of candidate bodies of information and the weight values of the keywords in a management server.

16. (Amended) An apparatus for searching for output information [strongly] related to input information from a plurality of candidate bodies of information, said apparatus comprising:

[a registration] an extraction unit, adapted to [register in advance] extracting one or more keywords representing selectivity to the input information; [and]

a selector, adapted to select, as the output information, information [corresponding to a large number of] having a large sum value of keywords with values close to a value of the extracted one or more keywords from the plurality of candidate bodies of information; and

an output unit, adapted to output the input information attached with the output information.

17. (Amended) The apparatus according to claim 16, further comprising:

a first storage unit, adapted to store the plurality of candidate bodies of information in an information provider server; and

a second storage unit, adapted to store the one or more keywords representing selectivity to the input information in a management server.

18. (Amended) The apparatus according to claim 16, wherein the input information is specific information corresponding to a predetermined code inputted by a user, and each of the plurality of candidate bodies of information is information to be attached to the specific information and presented to the user.

19. (Amended) An apparatus for searching for output information [strongly] related to input information from a plurality of candidate bodies of information, said apparatus comprising:

[an assignment unit, adapted to assign in advance to the input information] a keyword list generator, adapted to of extract one or more information keywords typically representing information[, to assign in advance to] and each of the plurality of candidate bodies of information one or more information keywords, and to assign in advance to each information keyword, extract a weight value set in association with the input information and each of the plurality of candidate bodies of information, and to generate a keyword list;

[a registration] an extraction unit, adapted to [register in advance] extract one or more user keywords representing selectivity to the input information;

a calculator, adapted to execute a predetermined arithmetic operation for the weight value of each information keyword of the input information and the weight value of each information keyword of each of the plurality of candidate bodies of information;

a summation unit, adapted to calculate a sum value of arithmetic results obtained by performing the predetermined arithmetic operation for substantially all information keywords of each candidate bodies of information using said calculator;

a quantification unit, adapted to quantify a degree of matching between each information keyword of each of the plurality of candidate bodies of information and the one or more user keywords; [and]

a selector, adapted to select, as the output information, a largest one of the plural candidate bodies of information from a result obtained by adding quantified values obtained from said quantification unit to the [sum value] arithmetic results; and

an output unit, adapted to output the input information with the output information attached to the input information,

wherein the weight value is a numerical value with "-" or "+" given to each keyword in consideration of a respective universally accepted idea on the contents of each of the keyword, wherein the "-" and the "+" mean that the keyword has negative and positive contents, respectively, with respect to a corresponding one of the universally accepted ideas.

21. (Amended) A computer program product embodying a program for implementing a search method of searching for output information [strongly] related to input information from a plurality of candidate bodies of information, the program comprising:

program code for [an assignment step of assigning in advance to the input information] a keyword list generating step, of extracting one or more keywords typically representing information corresponding to the input information[, assigning in advance to] and each of the plurality of candidate bodies of information [at least one keyword, and assigning in advance to each keyword], extracting a weight value that is set in association with the input information and each of the plurality of candidate bodies of information, and generating a

keyword list;

program code for an arithmetic step₁ of executing a predetermined arithmetic operation for the weight value of each keyword of the input information and the weight value of each keyword of each of the plurality of candidate bodies of information; [and]

program code for a selection step₂ of selecting output information from the plurality of candidate bodies of information based on a sum value of arithmetic results obtained by performing the predetermined arithmetic operation for substantially all keywords of each of the plurality of candidate bodies of information in the arithmetic step; and

program code for an output step₃ of outputting the input information with the output information attached to the input information.

wherein the weight value is a numerical value with "-" or "+" given to each keyword in consideration of a respective universally accepted idea on the contents of each of the keywords, wherein the "-" and the "+" mean that the keyword has negative and positive contents, respectively, with respect to a corresponding one of the universally accepted ideas.

24. (Amended) The computer program product according to claim 21, wherein the program further comprises:

program code for an input step₁ of inputting the input information from a predetermined terminal;

program code for a first storage step₂ of storing contents of the plurality of candidate bodies of information in an information provider server; and

program code for a second storage step₃ of storing the keywords of each of the

plurality of candidate bodies of information and the weight values of the keywords in a management server.

25. (Amended) A computer program product embodying a program for implementing a search method of searching for output information [strongly] related to input information from a plurality of candidate bodies of information, the program comprising:

program code for [a registration] an extraction step₁ of [registering in advance] extracting one or more keywords representing selectivity to the input information; [and]

program code for a selection step₂ of selecting, as the output information, candidate information [corresponding to a large number of] having a large sum value of keywords with values close to a value of the extracted one or more keywords from the plurality of candidate bodies of information; and

program code for an output step₃ of outputting the input information with the output information attached to the input information.

26. (Amended) The computer program product according to claim 25, wherein the program further comprises:

program code for a first storage step₁ of storing the plurality of candidate bodies of information in an information provider server; and

program code for a second storage step₂ of storing the one or more keywords representing selectivity to the input information in a management server.

27. (Amended) The computer program product according to claim 25, wherein the input information is specific information corresponding to a predetermined code inputted by a user, and each of the plurality of candidate bodies of information is information to be attached to the specific information and presented to the user.

28. (Amended) A computer program product embodying a program for implementing a search method of searching for output information [strongly] related to input information from a plurality of candidate bodies of information, the program comprising:

program code for [an assignment step of assigning in advance to the input information] a keyword list generating step, of extracting one or more information keywords typically representing information[, assigning in advance to] and each of the plurality of candidate bodies of information [one or more information keywords, and assigning in advance to each information keyword], extracting a weight value set in association with the input information and each of the plurality of candidate bodies of information, and generating a keyword list;

program code for [a registration] an extraction step, of [registering in advance] extracting one or more user keywords representing selectivity to the input information;

program code for an arithmetic step, of executing a predetermined arithmetic operation for the weight value of each information keyword of the input information and the weight value of each information keyword of each of the plurality of candidate bodies of information;

program code for a calculation step, of calculating a sum value of arithmetic

results obtained by performing the predetermined arithmetic operation for substantially all information keywords of each candidate information in the arithmetic step;

program code for a quantification step₁ of quantifying a degree of matching between each information keyword of each of the plurality of candidate bodies of information and the one or more user keywords; [and]

program code for a selection step₁ of selecting, as the output information, a largest candidate information from a result obtained by adding quantified values obtained in the quantification step to the [sum value] arithmetic results; and

program code for an output step₁ of outputting the input information with the output information attached to the input information.

wherein the weight value is a numerical value with "-" or "+" given to each keyword in consideration of a respective universally accepted idea on the contents of each of the keyword, wherein the "-" and the "+" mean that the keyword has negative and positive contents, respectively, with respect to its corresponding one of the universally accepted ideas.

29. (Amended) The computer program product according to claim 28, wherein the program further comprises program code for a storage step₁ of storing in advance at least one apparatus keyword of a terminal apparatus for outputting the output information and a weight value of each apparatus keyword, and taking the weight value of each apparatus keyword into consideration.

30. - 38. (Canceled)

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